

# Fire Debris Report Writing Guidelines

## Table of Contents

<b>1</b>	<b>INTRODUCTION .....</b>	<b>2</b>
<b>2</b>	<b>SCOPE .....</b>	<b>2</b>
<b>3</b>	<b>PROCEDURE .....</b>	<b>2</b>
3.1	Results of Examinations .....	2
3.2	Interpretations / Limitations .....	2
3.3	Remarks.....	3
<b>4</b>	<b>LIMITATIONS .....</b>	<b>3</b>
<b>5</b>	<b>REFERENCES.....</b>	<b>3</b>
<b>6</b>	<b>REVISION HISTORY .....</b>	<b>3</b>
	<b>APPENDIX A: EXAMPLE WORDING FOR THE RESULTS OF EXAMINATIONS SECTION FOR FIRE DEBRIS <i>LABORATORY REPORTS</i> .....</b>	<b>4</b>
	<b>APPENDIX B: EXAMPLE WORDING FOR ADDRESSING LIMITATIONS OF FIRE DEBRIS <i>LABORATORY REPORTS</i> .....</b>	<b>5</b>

# Fire Debris Report Writing Guidelines

## 1 INTRODUCTION

FBI *Laboratory Reports* issued by Fire Debris examiners summarize analytical findings. Due to the wide variety of requests and evidence received, this document is only a general guideline for report writing. It will not always be possible to write a report using only the examples provided here. It is acceptable to use other wording as long as the results of the examinations are accurately communicated, a summary of the methodology used to reach the results is included, any known limitations are addressed, and the wording is approved during the technical review process by an authorized technical reviewer. Additionally, any wording must comply with the *FBI Approved Standards for Scientific Testimony and Report Language for Fire Debris Analysis* (FD-906).

## 2 SCOPE

This procedure applies to caseworking personnel who are qualified to author *Laboratory Reports* concerning Fire Debris examinations.

## 3 PROCEDURE

Prepare and format the *Laboratory Report* in accordance with requirements set forth in LAB-200. Prepare a **Results of Examinations** section and **Remarks** section. An **Interpretation/Limitations** section can be added to provide clarity as needed.

### 3.1 Results of Examinations

The **Results of Examinations** section will be used to communicate the results of the Fire Debris examinations, a summary of the methodology used, and will include the requirements set forth in LAB-200. This section may also include a description of the items received or other information to assist in communicating the results. Information about trade names or uses of specific compounds will also be stated, as necessary. Examples of appropriate wording for the **Results of Examinations** section are included in Appendix A.

- When the results are based solely off of headspace analyses, the results should be reported as “Residues of...”.
- When non-ignitable liquids are encountered (e.g., water or aqueous-based products), the term “consistent with” will be used.
- When reporting on multi-layer liquids, results will be provided for each layer.

### 3.2 Interpretations / Limitations

The **Interpretations/Limitations** section will be used to communication any known limitations of the results, or limitations of the testing based on the evidence received. This section will also include any interpretations that may aid the reader in understanding the significance of the **Results of Examinations**. The below list contains guidance for the **Interpretation/Limitations** section. Examples of appropriate wording for such limitations can be found in Appendix B.

- The terminology "consistent with" does not imply an identification of a specific chemical

or product. A substance is termed "consistent with" a material when the analytical data does not support an identification of a specific chemical or product, but does provide reliable information to include the substance within a class of materials. The phrase "consistent with" is also used when an appropriate reference standard could not be obtained/was not analyzed.

- If examinations were limited based on limited specimen amounts, this will be stated.
- If examinations were limited due to the nature of the packaging of the material, this will be stated. This may result in no examinations being performed.
- If examinations were limited by the method used to collect the samples, this will be stated.
- When an ignitable liquid is identified and the substrate could be a potential source, a caveat acknowledging the matrix as a potential source of the ignitable liquid will be included.

### 3.3 Remarks

The **Remarks** section will include the requirements set forth in LAB-200.

### 4 LIMITATIONS

Every scenario cannot be anticipated. This document only serves as a general guideline.

### 5 REFERENCES

*FBI Approved Standards for Scientific Testimony and Report Language for Fire Debris Analysis, FD-906*

### 6 REVISION HISTORY

Revision	Issued	Changes
00	7/15/2020	Original document issued
01	7/15/2022	Issuance to comply with Lab reformatting policy. Removed <i>Explosive Chemistry</i> from Section 1 ASSTR document title as that will now be a separate document in CU.
02	02/01/2023	Section 3 - Added guidance for Interpretations/Limitations Added verbiage for "consistent with" and wording for multi-layer liquids Added substrates/matrix considerations to limitations section as applicable. Appendix A, B – Adjusted wording examples

**APPENDIX A: EXAMPLE WORDING FOR THE RESULTS OF EXAMINATIONS SECTION FOR FIRE DEBRIS LABORATORY REPORTS**

Example for ignitable liquid:

The Item 1 liquid was identified as gasoline. Gasoline is an ignitable liquid.

Example for residues of gasoline:

Residues of gasoline were identified in Item 1. Gasoline is an ignitable liquid.

Example for no ignitable liquid residues identified:

Ignitable liquid residues were not identified on Items 1 and 2.

Example for heavy petroleum distillate residues:

Residues of a heavy petroleum distillate were identified in Item 1. Heavy petroleum distillates are ignitable liquids. Examples of heavy petroleum distillates include kerosene, diesel fuel, some jet fuels, and some charcoal starters.

Example for instruments used for liquids:

A portion of Item 6 was diluted with solvent and analyzed by gas chromatography-mass spectrometry (GC/MS).

Example for instruments used for residues:

Items 1 and 2 were examined using a passive adsorption/elution technique and analyzed by gas chromatography-mass spectrometry (GC/MS).

**APPENDIX B: EXAMPLE WORDING FOR ADDRESSING LIMITATIONS OF FIRE DEBRIS LABORATORY REPORTS**

Example limitation to explain a positive result for an ignitable liquid:

Toluene, which is an ignitable liquid and a component of gasoline, was identified in Items 3 and 4; however, its presence is not necessarily significant because it is common to many different products and materials and is often observed as a background contaminate in fire debris. No other ignitable liquids were identified in Items 3 and 4.

Example limitation for commercial product comparisons and reporting of materials not identifiable as an ignitable liquid:

The terminology “consistent with” does not imply an identification of a specific chemical or product. A substance is termed “consistent with” a material when the analytical data does not support an identification of a specific chemical or product but does provide reliable information to include the substance within a class of materials. The phrase “consistent with” is also used when an appropriate reference standard could not be obtained.